

Listing of Claims:

1. (Previously Presented) An audio device comprising:

a receiving unit configured to receive an analog speech signal representing a spoken message,

a converter configured to convert the analog speech signal into a digital speech signal comprising at least one speech signal fundamental frequency,

a storage unit configured to store a set of coded data representing a musical score comprising a set of notes, each note being defined by a note fundamental frequency, a duration, and an instrument that plays the note,

an extracting unit configured to extract a digital music signal from the set of coded data, and

a mixer configured to combine a first portion of the digital speech signal and a first portion of the digital music signal to produce a combined digital signal.
2. (Previously Presented) The audio device claimed in claim 1 further comprising a digital signal processor comprising the mixer.
3. (Previously Presented) The audio device claimed in claim 1 wherein the mixer is further configured to replace the fundamental frequency of the speech

signal by the fundamental frequency associated with a note of the music signal.

4. (Previously Presented) The audio device claimed in claim 3 wherein the fundamental frequency of the speech signal is replaced by the fundamental frequency associated with the note of the music signal during a period substantially equal to the duration of the note.

5. (Previously Presented) The audio device claimed in claim 1 further comprising a signal summing unit configured to add to the combined digital signal a second portion of the digital speech signal.

6. (Previously Presented) The audio device claimed in claim 1 further comprising a signal summing unit configured to add to the combined digital signal a second portion of the digital music signal.

7. (Previously Presented) The audio device claimed in claim 1 wherein the mixer is further configured to replace at least one harmonic frequency of the fundamental frequency of the speech signal with a harmonic frequency of the fundamental frequency associated with a note of the musical signal.

8. (Previously Presented) The audio device claimed in claim 1 further comprising a discriminator configured to discriminate a consonant from a vowel in the digital speech signal and to activate the mixer during the detection of the vowel.

9. (Previously Presented) The audio device claimed in claim 1 further comprising a voice activity detector configured to control the mixer.

10. (Previously Presented) The audio device claimed in claim 1 further comprising a vocoder configured to code the combined digital signal.

11. (Previously Presented) A telecommunication terminal comprising:
a receiving unit configured to receive an analog speech signal, a converter configured to convert the analog speech signal into a digital speech signal comprising at least one speech fundamental frequency,

a storage unit configured to store a set of coded data representing a musical score comprising a set of notes, each note being defined by a note fundamental frequency, a duration, and an instrument that plays the note,

an extracting unit configured to extract a digital music signal from the set of coded data, and

a mixer configured to combine a first portion of the digital speech signal and a first portion of the digital music signal to produce a combined digital signal.

12. (Previously Presented) The telecommunication terminal claimed in claim 11 further comprising a transmitter configured to transmit the combined digital signal to another terminal in real time.

13. (Previously Presented) The telecommunication terminal claimed in claim 11 further comprising a digital signal processor comprising the mixer.

14. (Previously Presented) The telecommunication terminal claimed in claim 11 wherein the mixer is further configured to replace the fundamental frequency of the speech signal by the fundamental frequency associated with a note of the music signal.

15. (Previously Presented) The telecommunication terminal claimed in claim 14 wherein the fundamental frequency of the speech signal is replaced by the fundamental frequency associated with the note of the music signal during a period substantially equal to the duration of the note.

16. (Previously Presented) The audio device claimed in claim 11 further comprising a signal summing unit configured to add to the combined digital signal a second portion of the digital speech signal.

17. (Previously Presented) The audio device claimed in claim 11 further comprising a signal summing unit configured to add to the combined digital signal a second portion of the digital music signal.

18. (Previously Presented) The telecommunication terminal claimed in claim 11 wherein the mixer is further configured to replace at least one harmonic frequency of the fundamental frequency of the speech signal with a harmonic frequency of the fundamental frequency associated with a note of the musical signal.

19. (Previously Presented) The telecommunication terminal claimed in claim 11 further comprising a discriminator configured to discriminate a consonant from a vowel in the digital speech signal and to activate the mixer during the detection of the vowel.

20. (Previously Presented) The telecommunication terminal claimed in

claim 11 further comprising a voice activity detector configured to control the mixer.

21. (Previously Presented) The telecommunication terminal claimed in claim 11 further comprising a vocoder configured to code the combined digital signal.